OPTIMIZING RESEARCH

FOR GREATER DISCOVERY

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KNOWLEDGE TRANSLATION

OVERVIEW

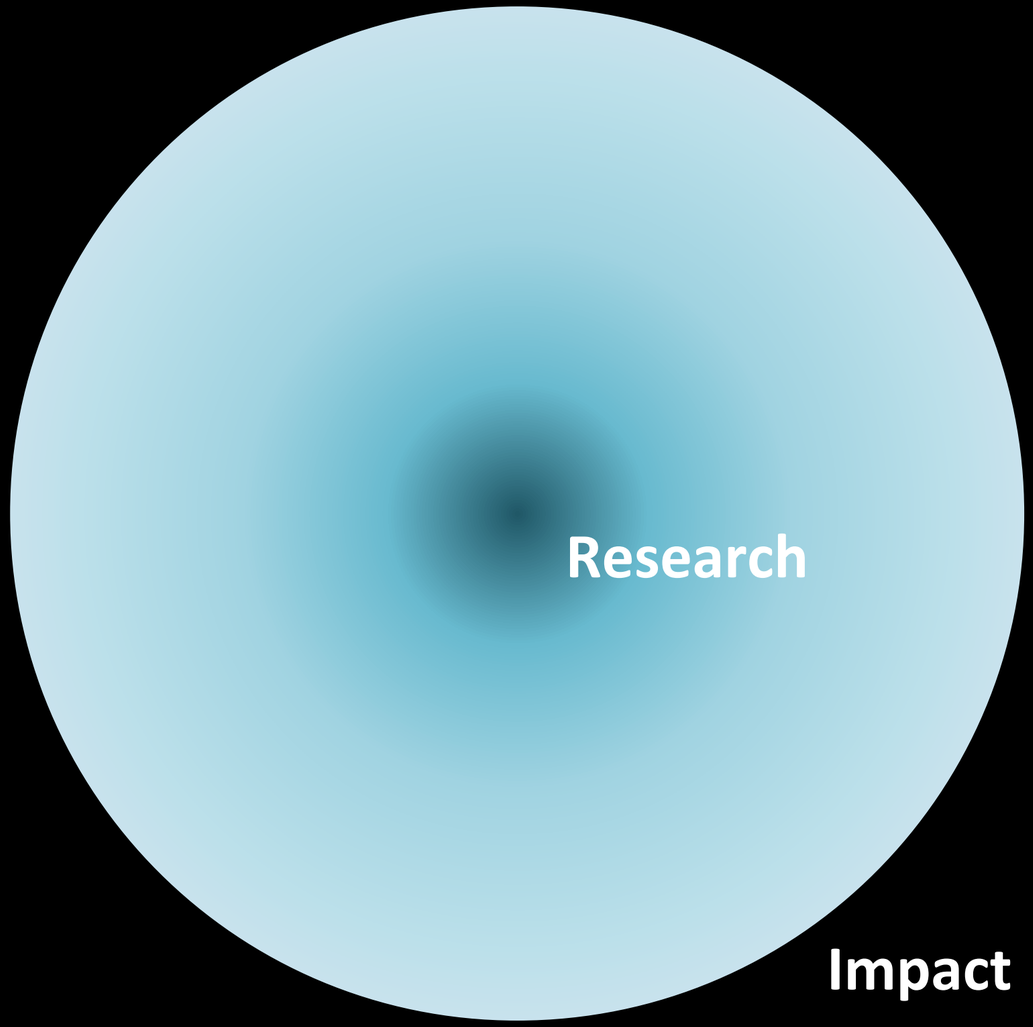
- Translating ‘Knowledge Translation’
- Why KT is needed
- How KT is done
- Insights from the real world
- Resources and helpful information

"Knowledge translation (KT) is defined as a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products & strengthen the health care system.“

- Implementing research evidence
- Evidence into action
- Turning what we know into what we do
- Making research matter

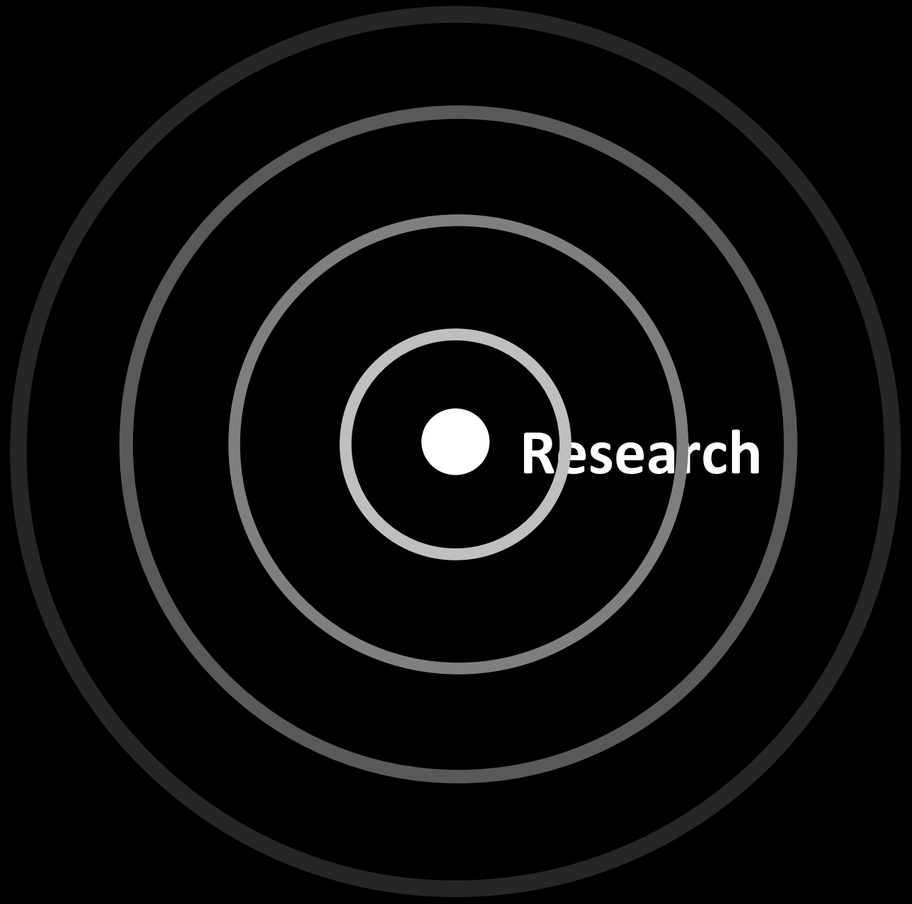
“A rose by any other name would smell as sweet”

- Knowledge translation (KT)
- Knowledge mobilization (KMb)
- Integrated Knowledge Translation (iKT)
- Knowledge exchange (KE)
- Implementation science
- Research Utilization



How does society benefit from research?

- tools and technology
- companies and jobs
- knowledge and understanding
- guidelines and policies
- treatments and healthcare practice
- health of the individual and population



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The classic example: scurvy

- 42 Years! Why so long?
- How do we shorten this gap?

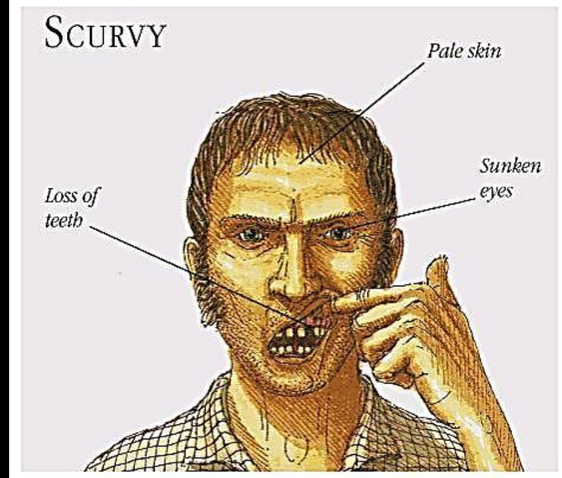


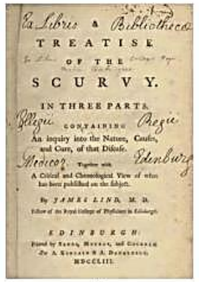
Image source: http://www.bigdeadplace.com/scurvyawareness.html

Between 1500 and 1800, it has been estimated that scurvy killed at least two million sailors.

What's the cure?

Minding Our Bodies
healthy eating and physical activity for mental health

How long did it take to move Lind's "knowledge" into "action"?



1747
Lind conducts experiment

1753
Lind publishes *A Treatise of the Scurvy*

1795
Royal Navy introduces fresh oranges and lemons into diet of sailors

1932
Vitamin C (ascorbic acid) identified as the "magic bullet"

42-year knowledge gap?

Minding Our Bodies
healthy eating and physical activity for mental health

The modern example: health research

- Why are there so many steps?
- How do we shorten this gap?

REVIEW

The answer is 17 years, what is the question: understanding time lags in translational research

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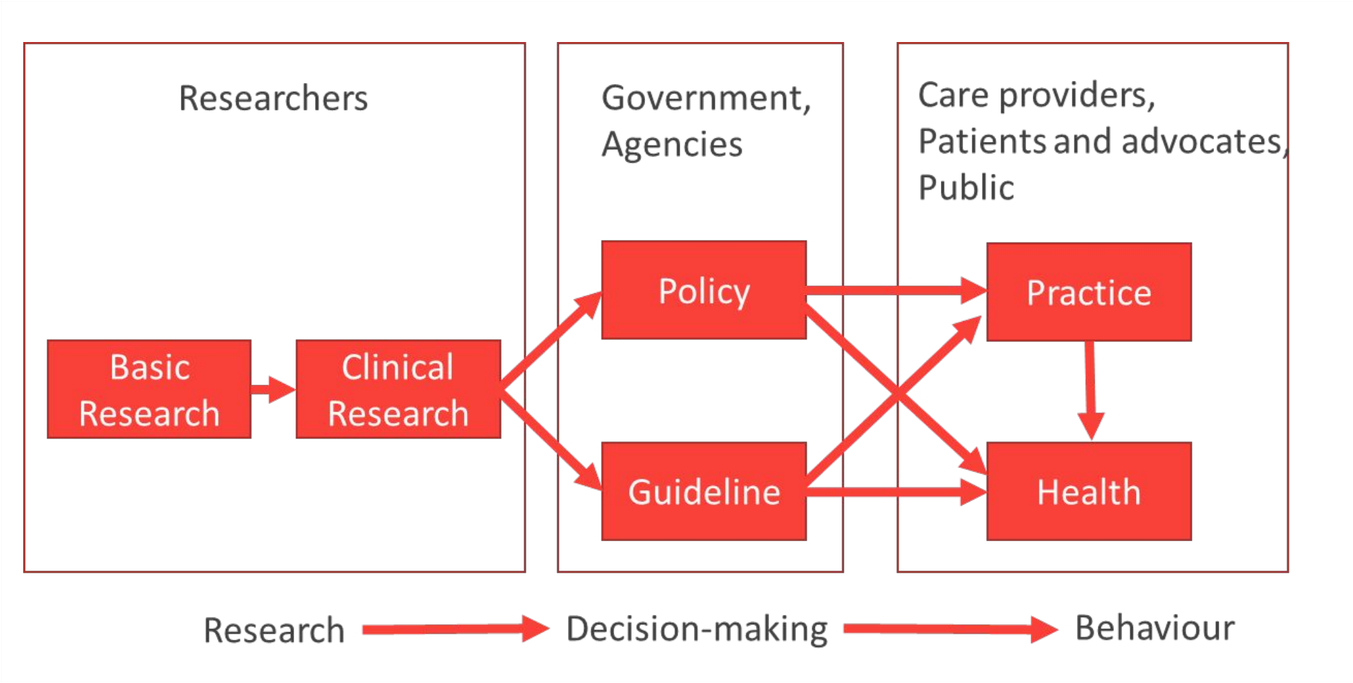
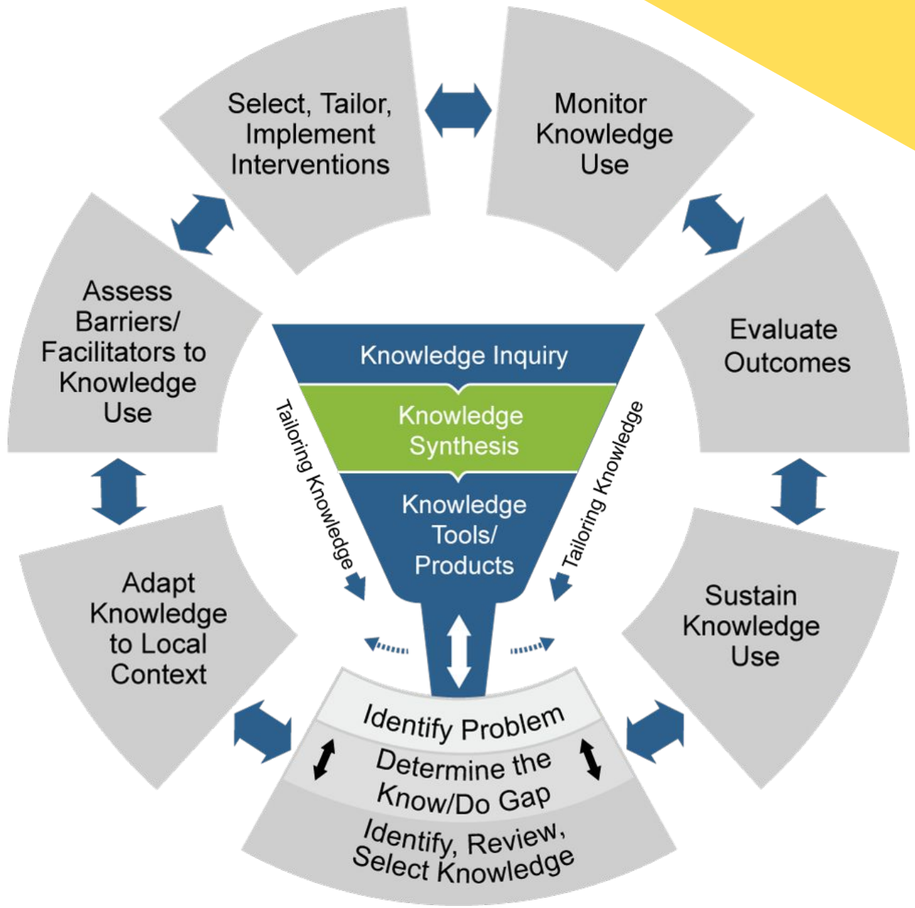


The knowledge to action cycle



- Process vs. system design
- Distillation of knowledge
- Theory vs. practice

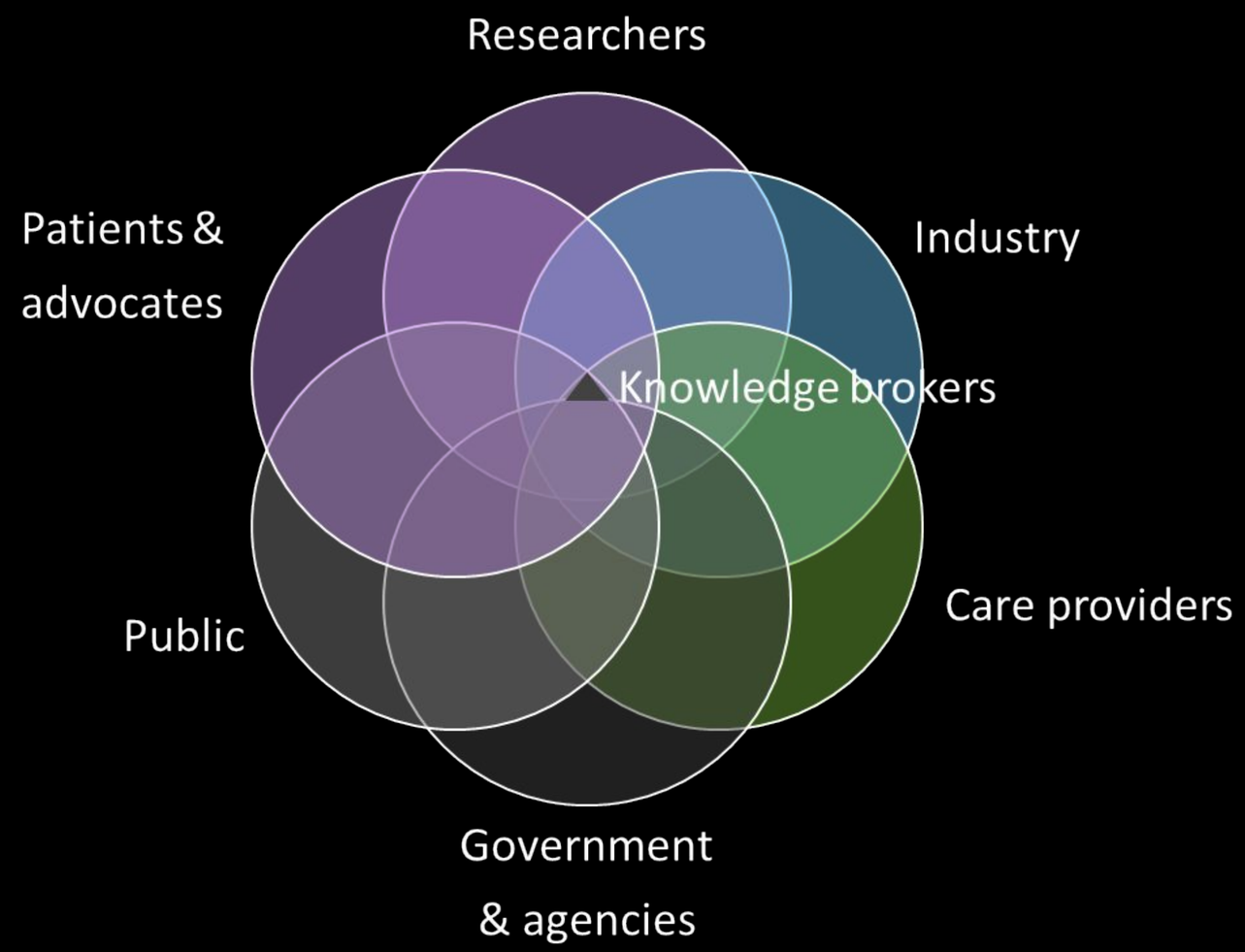
Two general approaches

End-of grant KT

Requires applicants to submit a plan for how they will translate their findings when the research is completed

Integrated KT

Requires that knowledge users be members of the research team and participate in many stages of the research process



Roles and incentives:

- Researchers
- Industry
- Care providers
- Government and funders
- Public, patients, advocates
- Knowledge brokers

- Clear vision
- Understand your ecosystem
- Partnership
- Communication
- Build trust
- Human resources
- Celebrate success

Papers referenced:

17 years:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3241518/pdf/JRSM-11-0180.pdf

James Lind:
http://www.jameslindlibrary.org/articles/james-lind-and-scurvy-1747-to-1795/

CIHR KT framework:
http://www.cihr-irsc.gc.ca/e/45321.html

General KT resources:

KT Canada
http://ktcanada.net/

Canadian Knowledge Transfer and Exchange Community of Practice
http://www.ktecop.ca/

Cochrane Community
https://community.cochrane.org/review-production/knowledge-translation/our-kt-community

How to develop a KT plan
https://www.msfhr.org/sites/default/files/How_to_Develop_and_Critique_a_KT_Plan.pdf

KT training:

SickKids
http://www.sickkids.ca/Learning/AbouttheInstitute/Programs/Knowledge-Translation/2-Day-Scientist-Knowledge-Translation-Training/index.html

St. Michael's Hospital
https://knowledgetranslation.net/education-training/pkt/

THANK YOU

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